

are allowable over the cited prior art, since independent claim 1 requires a material delivery device that delivers a fluid including indocyanine green to cells in the eye of a patient, and independent claim 14 requires heating the cells in the body above body temperature and below a temperature at which protein denaturation occurs.

Applicant appreciates the allowance of claims 20-25 and the indication of allowable subject matter in claims 4, 5, 9, 13 and 15-19.

Rejections – 35 U.S.C. §112, second paragraph

The Examiner has rejected claims 1-13 under 35 U.S.C. §112, second paragraph as being indefinite. Specifically, the Action states that an apparatus is recited in independent claim 1 and a system is recited in dependent claims 2-13. Additionally, the Action alleges that it is unclear whether the further limitations of the fluid in claims 2-7 are being claimed. Furthermore, the Action alleges that the phrase “said indocyanine portion” in claim 5 lacks antecedent basis.

As noted above, claims 1 and 5 have been amended to overcome these rejections.

Rejections – 35 U.S.C. § 102(b)

The Examiner has rejected claims 1, 2, 6-8 and 11 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,885,279 to Bretton.

Applicant submits that although the Bretton patent discloses introducing a fluid to the eye for irrigation purposes, the Bretton patent does not disclose, teach or suggest a system that delivers a fluid including indocyanine green to cells in the eye, said fluid being adapted to alter a physical characteristic of the cells.

Amended independent claim 1 recites, among other things, a system for treating cells of an eye in a patient, including a material delivery device that delivers a fluid including indocyanine green to the cells, the fluid being adapted to alter a physical characteristic of the cells. By delivering indocyanine green to cells in the eye, the fluid can alter the physical characteristic of those cells or, in other words, cause damage to those cells. Additionally, the indocyanine green can be applied to a wide area and a probe can be used to emit light of an appropriate wavelength to specific cells so that the indocyanine green in contact with or absorbed by the specific cells are activated by the light, and thus change a physical characteristic of those specific cells.

Clearly there is no disclosure, teaching or suggestion in the Bretton patent of indocyanine green. At best, the Bretton patent discloses using an energy source, such as a laser, to heat the fluid contents of an inflatable tip. Applicant submits that the Bretton patent therefore, does not disclose, teach or suggest all of the elements of amended independent claim 1.

Furthermore, since the Bretton patent does not disclose or suggest any of the benefits recited above or disclose or suggest any material that can be used to effect cells in a manner similar to that of indocyanine green, the Bretton patent does not render obvious independent claim 1.

Applicant submits that since the Bretton patent does not disclose, teach or suggest the use of a fluid including indocyanine green, claim 1 and its dependent claims 2-13 are allowable over the cited prior art.

Claim 14 stands rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,549,596 to Latina. Applicant submits that the Latina patent does not disclose, teach or suggest heating cells to a temperature which is *above body temperature and below a temperature at*

which protein denaturation occurs in said choroidal cells, to kill said choroidal cells or impede multiplication of said choroidal cells, as recited in independent claim 14.

By heating the cells in this manner capsular opacification can be substantially reduced or eliminated.

The Latina patent discloses damaging or killing certain ocular cells, while sparing other cells and tissue structures within the region of radiation. This is done using laser irradiation of low radiant exposure for short pulse durations. The Latina patent specifically states that excessive pulse duration may cause nonselective killing of both pigmented and nonpigmented cells, as well as disruption of collagenous structures. There are clearly no specific temperature limitations in the Latina patent, let alone heating cells to a temperature which is above body temperature and below a temperature at which protein denaturation occurs. By reciting the elements in independent claim 14, the present invention is not limited to a time duration as with the Latina patent, but rather a temperature duration. Therefore, by using the method recited in claim 14, the cells in the eye can be heated for a desired time frame, without the danger of capsular opacification occurring.

Since it is clear that the Latina patent does not teach or suggest all of the limitations in independent claim 14, Applicant submits that claim 14 is not rendered obvious. Accordingly, independent claim 14 and its respective dependent claims should be allowable.

Claims 1, 6 and 10-12 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,846,172 to Berlin.

Applicant submits that, as with the Bretton patent, the Berlin patent discloses introducing a fluid to the eye for irrigation purposes, but does not disclose, teach or suggest a system that

delivers a fluid including indocyanine green to cells in the eye, said fluid being adapted to alter a physical characteristic of the cells.

Applicant submits that since the Berlin patent does not disclose, teach or suggest the use of a fluid including indocyanine green, claim 1 and its dependent claims 2-13 are allowable over the cited prior art.

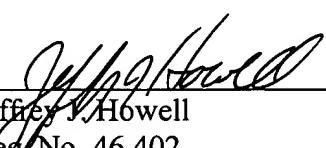
Rejections – 35 U.S.C. § 103(a)

Claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable over the Bretton patent. Since this claim is dependent from amended independent claim 1, it is allowable for the reasons stated above.

In view of the above, it is believed that the above-identified application is in condition for allowance, and notice to that effect is respectfully requested. Should the Examiner have any questions, the Examiner is encouraged to contact the undersigned at the number indicated below.

Attached hereto is a marked-up version of the changes made to the specification by the current amendments. The attached page is captioned "Version With Markings To Show Changes Made".

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Please replace paragraph [0063] with the following paragraph:

[0063] It is also noted that the devices shown in Figs. 2 and 4-13 as described above can be used to treat cells at locations in the body other than the lens capsule. For example, the devices can be used to treat cells in blood vessels, skin and mucus tissues, the intestine, vagina, uterus, bladder, urethra, [prostrate] prostate, rectum, sinuses, brain, breast, heart, or any site in the body. The manner in which the devices are used to treat cells at these various locations in the body is similar to that described above with regard to the treatment of cells at the lens capsule.

IN THE CLAIMS:

Please amend claims 1 and 5 as follows:

1. (Amended) [An apparatus] A system for treating cells of an eye in a patient, comprising:

an energy emitting device, adapted to emit energy to heat said cells to a temperature which is above body temperature and below a temperature at which protein denaturation occurs
~~>46°C~~ in said cells, to kill said cells or impede multiplication of said cells; and

a material delivery device [adapted to deliver] that delivers a fluid including indocyanine green to said cells, said fluid being adapted to alter a physical characteristic of said cells.

5. A system as claimed in claim 1, wherein:

said energy emitting device includes a laser diode, which is adapted to emit said energy to activate said indocyanine green portion of said fluid.